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CLAIMS

I claim:

1. (Currently amended) Device ~~(110, 210, 310, 510)~~ for the automated detection of mountings among animals, intended to be worn by an animal ~~(100)~~, ~~characterized by the fact that it includes~~, said device comprising:

a fastener ~~(105, 505)~~ positioned on said animal;;

a means ~~of detection (140)~~ of for detecting a mounting attempt by said animal; on a female animal ~~(120)~~; and

~~a means of identification (145, 180, 345, 580)~~ of for identifying an electronic tag placed in ~~the an organ~~ organism of ~~the said~~ female animal, activated by said means ~~of detection and/~~ for detecting or means ~~of identification of the female animal~~ for identifying or both by processing an image of at least a part of ~~the said~~ female animal activated by said means ~~of detection~~ for detecting.

2. (Currently amended) Device as per claim 1, ~~characterized by the fact that it includes a~~ further comprising:

~~means of identification (145, 180, 345, 580)~~ of for identifying an electronic tag placed in ~~the organism~~ an organ of ~~the said~~ female animal, activated by said means ~~of detection~~ for detecting.

3. (Currently amended) Device as per claim 2, ~~characterized by the fact that~~ wherein said electronic tag is placed in ~~the a~~ digestive tract of ~~the said~~ female animal.

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4. (Currently amended) Device as per ~~any of claims 2 or 3~~, characterized by the fact that it includes Claim 1, further comprising:

a memory of identifications of excluded electronic tags; and

~~a means of exclusion of~~ for excluding identifications of electronic tags capable of not taking into account identifications of tags stored in said memory.

5. (Currently amended) Device as per ~~any of claims 2 to 4~~, characterized by the fact that the Claim 1, wherein said means ~~of detection for detecting~~ and the said means ~~of identification identifying~~ are ~~capable~~ comprised of emitting a magnetic field energizing the said electronic tag placed in ~~the organism of the~~ said organ of said female animal to energize said electronic tag.

6. (Currently amended) Device as per ~~any of claims 2 to 5~~, characterized by the fact that the Claim 1, wherein said means ~~of identification includes~~ for identifying comprises a means for writing onto the said electronic tag ~~placed in the organism of the female animal~~.

7. (Currently amended) Device as per ~~any of the claims 2 to 6~~, characterized by the fact that the Claim 1, wherein said fastener ~~includes~~ comprises:

a harness positioning ~~=at the moment of~~ during a mounting attempt, ~~an antenna of the~~ said means ~~of identification (145, 180, 345, 580) of an electronic tag placed in the organism of the female animal~~ for identifying having an antenna in place to receive signals emitted by said electronic tag ~~placed in the organism of the female animal~~.

8. (Currently amended) Device as per ~~any of the claims 1 to 7~~, characterized by the fact that the Claim 1, wherein said means ~~of detection (140) of~~ for detecting mounting attempts ~~includes~~ is comprised of a verticality sensor ~~(740E)~~.

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9. (Currently amended) Device as per ~~any of the claims 1 to 8~~, characterized by the fact that ~~the Claim 1, wherein said means of detection (140) of~~ for detecting mounting attempts ~~includes comprises~~ a sensor for the pressure (740A) exerted on ~~the a~~ back of ~~the said~~ female animal, said pressure sensor being placed under ~~the a~~ belly of the animal (100) wearing the device.

10. (Currently amended) Device as per ~~any of the claims 1 to 9~~, characterized by the fact that ~~the Claim 1, wherein said means of detection (140) of~~ for detecting mounting attempts ~~includes comprises~~ a temperature sensor (740B), said temperature sensor being placed under the belly of the animal (100) wearing the device.

11. (Currently amended) Device as per ~~any of the claims 1 to 10~~, characterized by the fact ~~that the Claim 1, wherein said means of detection (140) of~~ for detecting mounting attempts ~~includes comprises~~ a motion sensor (740D) ~~[sensing the movements], movements~~ of the animal (100) wearing the device being sensed.

12. (Currently amended) Device as per ~~any of the claims 1 to 11~~, characterized by the fact ~~that it includes~~ Claim 1, further comprising:

~~a means of identification of the~~ for identifying said female animal by processing an image of at least one part of ~~the said~~ female animal, said means ~~of identification for identifying said female by processing~~ being activated by said means ~~of detection~~ for detecting.

13. (Currently amended) Device as per ~~any of the claims 1 to 12~~, characterized by the fact ~~that it includes a~~ Claim 1, further comprising:

~~means for determining the time and date (170, 570) of each mounting attempt.~~

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14. (Currently amended) Device as per ~~any of the claims 1 to 13~~, characterized by the fact that it includes a Claim 1, further comprising:

~~means of transmission (145, 150) of~~ for transmitting at least one part of the identifications of the female animals identified by ~~the said means of identification~~ for identifying.

15. (Currently amended) Device as per ~~any of the claims 1 to 14~~, characterized by the fact that it includes a Claim 1, further comprising:

means for processing ~~the~~ identifications of ~~the~~ female animals capable of determining at least one result of statistical analysis of mounting attempts for each female animal.

16. (Currently amended) Process as per claim 15, ~~characterized by the fact that the~~ wherein said means for processing the identifications of female animals is capable of determining said result bases on a calibration of ~~the~~ libido of at least one animal of said fraction of the animals ~~in the herd~~.

17. (Currently amended) Device for ~~the~~ automated detection of mountings between animals, ~~intended to be~~ being placed in ~~the organism~~ an organ of a female animal, ~~characterized by the fact that it includes~~ said device comprising:

~~a means of detection (140) of~~ for detecting a mounting attempt on said female animal by another animal,

~~a~~ means for processing said mounting attempt, and

~~a~~ means for transmitting ~~the~~ a result of ~~the~~ processing.

18. (Currently amended) Process of automated detection of mountings among animals, ~~characterized by the fact that it includes~~ comprising the steps of:

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installing a means for detecting mounting attempts on a female animal and a means for identifying said female animal ~~a step of installation (400)~~, on a fraction of ~~the~~ animals ~~of the~~ in a herd, each animal (100) of said fraction being liable to make said mounting attempts, ~~of a means for detecting mounting attempts (140, 345) on a female animal and of a means for identifying (145, 180, 345, 580) said female animal;~~

~~a step of detection (430) of~~ detecting a mounting attempt by said each animal; on a female animal ~~(120)~~; and

identifying, in the event of detection of a mounting attempt, ~~a step of identification (435) of~~ an electronic tag placed in ~~the organism~~ an organ of ~~the~~ a detected female animal or of ~~identification of~~ identifying the said detected female animal by processing of an image of said detected female animal.

19. (Currently amended) Process as per claim 18, ~~characterized by the fact that, during the wherein said~~ step of ~~identification (435) of~~ identifying an electronic tag placed in the ~~organism~~ organ of ~~the~~ said female animal, is comprised of identifying an electronic tag placed in the ~~organism~~ organ of ~~the~~ said female animal ~~is identified~~.

20. (Currently amended) Process as per ~~any of the claims 18 or 19~~, characterized by the fact ~~that it includes a step of calibration~~ Claim 18, further comprising the step of:

calibrating (905 to 930) of the libido of at least one animal of said fraction of animals of the herd.

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ABSTRACT OF THE DISCLOSURE

The inventive device (110, 210, 310, 510) for automatically detecting the mating of animals is wearable by an animal (100) and comprises means (105, 505) for fixing. The device includes a fixing to an animal mechanism, means (140) for detecting a detector for an attempt of mating a female animal (120) by said by the animal with the fixing mechanism, means (145, 180, 345, 580) for identifying and an identifier for an electronic label which is introduced in the body of said the female animal and actuated by said detection means the detector and/or by the female animal identification means device by processing the image of at least one part of the female animal triggered by said detection means the detector. In the preferred embodiment, means for identifying said other animal comprises means for communicating The identifier includes a communicator with the an electronic label (130) carried by a female animal conspecific with the animal triggered by said detection means. In one of the embodiments, communications means is The communicator can read embodied in such a way that it reads the electronic label identifier of each female animal which said the animal attempts to mate and storing means (160) memorises each displayed identifier. In the other embodiment, communication means is The communication can also be provided with a device for storing representative information on the attempted mating in the random access memory of the electronic label carried by the conspecific female animal.